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Intruder Detector The shadowy prowler is attempting a break-in, unaware that his presence has already been detected and reported by the device in the lower left corner of the photo. It is part of a three-element Intruder Detection System developed by NASA's Ames Research Center from technology acquired in the Apollo lunar exploration program.

Apollo astronauts left behind on the moon small portable seismic (shock) detectors to record subsurface vibrations and transmit to Earth data on the moon's density and thickness. A similar seismic detector is the key component of the Intruder Detection System.

Encased in a stainless steel tube, the detector is implanted in the ground outside the facility being protected—home, bank, industrial or other facilities. The vibration-sensing detector

picks up the footstep of anyone within a preset range. The detector is connected by cable to the transmitter, which relays the warning to a portable radio receiver. The radio alerts plant guards or home occupants by emitting an audible tone burst for each footstep.

For large industrial facilities, the detector's range can be as much as 260 feet. It would be set to shorter range for home use, so that the sensor would not pick up ordinary sidewalk traffic. In either plant or home use, the system could be tied in to the alert station of a municipal or commercial protection agency. It also has applicability to wildlife research.

NASA has granted licenses to two manufacturers for commercial production of the system.